

## FIRST PUBLIC REPORT TEMPLATE

### Controlling Corporation

Food Investments Pty Ltd – FIN 000

### Period to which this report relates

(See sub-section 22(2) of the Act and Regulation 7.1 of the *Energy Efficiency Opportunities Regulations (the Regulations) 2006*)

Start

1 August 2007

End

31 July 2008

### Part 1 - Summary of assessments conducted thus far

**Table 1.1 - Description of the way in which the corporation has carried out its assessments and over what period was each assessment taken. A statement saying that the intent and key requirements of the Energy Efficiency Opportunities legislation have been met must be made.**

Food Investments Pty Ltd, the controlling entity of George Weston Foods Limited (GWF) and the AB Mauri Group of Companies, is committed to compliance with the Energy Efficiency Opportunities (EEO) requirements and is supportive of the objective of identifying and implementing energy savings opportunities. The trigger year for participation to EEO was 2005-06 financial year and therefore assessment of at least 80% of total energy consumption should be completed by end of June 2011.

The annual energy consumption for the period of 1 August 2007 to 31 July 2008 was 2.3PJ, whereby 28 manufacturing sites from the Baking (1.3PJ), Cereal (0.28PJ) and Don KR (0.44PJ) divisions would be assessed to cover approximately 85% of the total energy consumption. To date, Food Investments has assessed 9% of its total energy use. During 2008, assessment at the Don Altona site was discontinued for reasons detailed below. In 2009, Food Investments has scheduled assessments to cover another 32% of the total energy use.

One site from each division was selected for initial assessments commencing from February 2008. The assessment at the Don Altona site was discontinued after 60% completion due to the recent acquisition of the KR Castlemaine business. The integration of the meat and dairy operations at a single site at Castlemaine means that the Don Altona site will close. An assessment was commenced at the Castlemaine site in October 2008, however due to the time constraints, completion for December 2008 reporting was not possible. This situation has been addressed and acknowledged by the Department of Resources, Energy and Tourism (DRET).

Energy assessments have been completed for Tip Top Dandenong (Baking) and Weston Milling Enfield (Cereal). Food Investments has engaged energy consultants to perform comprehensive energy assessments which comply with the intent and key requirements of the EEO program. In broad terms, the assessments involve analysis of production and energy data, site visits/discussions with the site technical crews and mass/energy balance evaluation based on equipment ratings and specifications, typical efficiencies and load factors, duty factors relating to operating hours and site protocols. Recommendations to improve management of energy were derived from the analyses which in turn lead to identification of energy efficiency opportunities.

The EEO assessments have identified some opportunities which due to lack of sub-metering will require further investigation. The lack of sub-metering limits the ability to accurately evaluate investment return and energy savings from these opportunities. Food Investments is committed to implement sufficient sub-metering at process or equipment level to enable accurate assessment of opportunities identified.

The initiative to improve energy and other resource efficiencies has been informally practiced in most Food Investments operations even prior to participation in the EEO program. Tip Top Dandenong and Weston Milling Enfield have also supported state environmental schemes such as the Victorian Environment and Resource Efficiency Plan (EREP) and the NSW Energy Saving Action Plans (ESAP) respectively.

A number of significant opportunities were identified from these programs to improve energy performance. At Dandenong, an opportunity to upgrade the compressed air system to improve energy performance was identified and assessed in late 2007. In April 2008, new compressors were installed resulting in an average reduction of 25% in electrical demand.

In the last financial year, The Weston Milling Cereals Division initiated the program "Towards Milling Excellence" (TME). This aims to address every aspect of milling operations and introduce efficiency related improvements wherever they are identified. The TME program commences with a detailed audit of the Plant and Equipment Inventory to establish current conditions and then identify opportunities for improvements. The TME program has been completed at some milling sites in Qld with plans to roll out at the Enfield plant in the near future. A number of efficiency improvements have been made at Enfield. In particular the energy awareness of management has greatly improved. Significant results have also been achieved in improving energy efficiency over the last three years. The energy KPI has improved, saving approximately 1,400MWh of electricity on an annual basis which is equivalent to a greenhouse gas reduction of around 1250 Tonnes CO<sub>2</sub>e. Further improvements can be expected as the full TME program is rolled out at the Enfield plant.

<b>Table 1.2 - Group member/business unit/key activity/site that have been assessed</b>	<b>Energy use per annum in the year the assessment is completed (GJ) *</b>	<b>Energy data accuracy (if not within <math>\pm 5\%</math>) **</b>	<b>Reasons for not achieving data accuracy to within <math>\pm 5\%</math> **</b>
(see paragraph 1(a) of Schedule 4 of the Regulations)	(see paragraph 2 of Schedule 4 of the Regulations)	(see paragraph 5(a) of Schedule 4 of the Regulations)	(see paragraph 5(b) of Schedule 4 of the Regulations)
Tip Top Dandenong	154,143		
Milling Enfield	60,008		
<b>Total</b>	214,151		
<b>Total as a percentage of total energy use of the group covered by this report</b>	9.3%		

\* Energy Bandwidth may only be used if approved in the Assessment and Reporting Schedule

\*\* Data accuracy not within  $\pm 5\%$  can only be included if approved in the Assessment and Reporting Schedule

## Part 2 - Outcomes of and business response to opportunities that have been identified and evaluated for each group member, business unit, key activity or site assessed

(See paragraphs 3-6 of Schedule 4 and Schedule 6 of the Regulations)

Group member/business unit/key activity/site >0.5 PJ name: **Food Investments Pty Ltd**

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (GJ)		Total estimated energy savings per annum (GJ)	*Accuracy range (%)	
			0 – < 2 years	2 – ≤ 4 years			
Outcomes of assessment	Identified (accuracy ≤ ±30%)	1 <sup>(a)</sup>		0	0	±30%	
	Identified (accuracy > ±30%)	10	1. Priority has been given to the implementation of sub-metering at Dandenong and Enfield sites which would involve an up front cost. Savings could then be achieved when excessive energy use is identified and reduced.				
	**Total Identified	11					
***Business Response	Under Investigation	9	Savings from further operational improvements will be accurately quantified when sub-meters are in place.  2. Planned replacement of yard and high bay lighting at the Enfield site has been agreed and the program commenced.				
	To be Implemented	0					
	Implementation Commenced	2					
	Implemented	0					
	Not to be Implemented	0					

\*The accuracy range for projected or actual costs, benefits and energy savings.

\*\*You must ensure that this row is the sum of the two rows above it.

\*\*\* The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

### Note:

<sup>(a)</sup> This opportunity is installation of power correction factor at Tip Top Dandenong. It would not result in reduction in energy consumption, but would save energy distribution costs for the business.

An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

## Details of at least three significant opportunities found through EEO assessments

(See paragraph 7 of Schedule 4 of the Regulations)

Details must include a brief description of the opportunity and may optionally include details of the costs of implementation, energy/dollar savings and any other benefits (such as greenhouse reductions).

**Table 1.4**

### **Opportunity 1 – Installation of sub-meters and utilization of data captured for accurate identification of energy savings opportunities at Tip Top Dandenong and Weston Milling Enfield**

The accurate determination of energy flows requires metering and accurate records covering several months, or years of operation. Due to insufficient sub-metering at process or equipment level, the energy assessment at Tip Top Dandenong and Weston Milling Enfield were conducted based on equipment ratings and specifications, typical efficiencies and load factors, duty factors relating to operating hours and protocols on site. The estimated energy breakdown was verified and agreed with invoiced consumption. Nevertheless, verification against actual metered consumption would be necessary for accurate evaluation of energy/cost savings opportunities.

From discussion with other participants during the EEO workshops, insufficient sub-metering was found to be a common industry issue. The EEO assessment has enabled identification of potential sub-metering points which would be useful for identification of saving opportunities. The installation of sub-meters would commence from the 2009-2010 financial year, followed by comprehensive energy data capture and analysis. Estimated energy breakdown from the EEO assessment would be verified against the metered consumption to enable further evaluation of savings opportunities and project priorities.

### **Opportunity 2 - Improvement of lighting at Weston Milling Enfield**

Currently, mercury vapour (MV) lights are installed in the raw materials handling and finished products handling areas. MV technology is a reliable light source that has been used for outdoor and high bay lighting for many years. However high intensity discharge (HID) sources are now commonly available at similar capital cost with much improved efficacy. For yard lighting and high bay lighting, where colour rendition is not critical, the optimum HID source is the high pressure sodium (HPS) lamp. High wattage MV lamps (over 400W) typically have an efficacy of 60 Lumens/Watt, whereas HPS lamps have at least 120 Lumens/Watt.

There is an opportunity to replace MV lamps with HPS; however the value of the savings would not justify the cost of a bulk replacement on existing light fittings. Opportunistic replacement would be implemented as existing fittings deteriorate. This will ultimately save 62 MWh of electricity per year at no appreciable capital cost.

**Opportunity 3 – Compressed air refurbishment at Weston Milling (WM) Enfield**

Compressed air generation presently consumes some 1900MWh of electricity per year. An efficient compressed air system has been projected to reduce operating costs by 25% or more. The key issues affecting compressed air performance at WM Enfield are incorrect sizing of some pipework and its poor condition due to age. Due to this complication, refurbishment of compressed air needs to be carefully considered and planned as it could affect the entire plant's performance.

A detailed, independent review of all components of the compressed air system has been recently completed, presenting around \$700,000 in capital expenditure with potential savings of 2.8 MWh in electricity or equivalent to \$110,000 in operational cost per annum. Due to the extended payback and its complexity, this project needs further review or broken down into a number of smaller initiatives. Implementation would likely be undertaken over several stages and actions performed over the next 12 months will be updated in 2009 reporting.

\*If there are less than three significant opportunities, provide details of those identified.

\*\*If no significant opportunities have been identified in the assessment, a statement to this effect.

**Part 3 - Voluntary Contextual Information**

Reporting corporations may supply additional information that provides more context to the public report. Such information may include:

- Energy use and energy saved by energy type, as greenhouse gas emissions, as an indicator, or as an index;
- Energy savings achieved in the period 2000-2005;
- Opportunities with a greater than four year payback and the business response;
- Changes in total energy use/energy use indicator broken down to include causes of increase or decrease;
- Energy use and energy efficiency opportunities presented in dollars; and
- Other contextual information about the corporation's energy use and management.

**Part 4 - Declaration**

(See paragraph 8 of Schedule 4 of the Regulations and paragraph 22(4)(c) of the Act)

The information included in this report has been reviewed and noted by the board of directors and is to the best of my knowledge, correct and in accordance with the *Energy Efficiency Opportunities Act 2006* and *Energy Efficiency Opportunities Regulations 2006*.



Geoff Starr  
Chief Executive  
George Weston Foods Limited